IN THE CLAIMS

1. (presently amended)   A modular method of modeling a power plant, the power plant comprising a plurality of major components including at least one of a gas turbine, a heat recovery steam generator, a steam turbine, and a condenser/cooling tower, said method comprising:

selecting a major component module model from a library of component module models for each major component of the power plant, each major component module representing a power plant major component of a unique configuration;

inputting initial model information into a database for the selected modules by inputting the initial model information into a spread sheet associated with each selected module, the initial model information including at least one of operating parameters, design data, convergence criteria, and a maximum number of passes;

running the modular model by running each selected module and enabling data exchange between the selected modules, wherein running each selected module comprises running the selected modules successively until interface conditions converge or until a predetermined maximum number of iterative passes are completed; and

generating a result that indicates the performance of the major components of the power plant.

2. (canceled)

3. (original)   A method in accordance with Claim 1 wherein said running the modular model comprises running the modular model by running each selected module in succession and passing the results from a module to the next module in succession.

4. (original)   A method in accordance with Claim 3 wherein said running each selected module in succession comprises running each selected module in a predetermined order.

5. (original)   A method in accordance with Claim 1 further comprising creating a library of major component module models.

6. (currently amended)   A modular method of modeling a power plant having a plurality of components, said method comprising:

selecting at least two component module models from a library of component modules, each component module representing a power plant component of a unique configuration;

inputting initial model information into a database for the selected modules by inputting initial model information into a spread sheet associated with each selected module, the initial model information including at least one of operating parameters, design data, convergence criteria, and a maximum number of passes;

running the modular model by running each selected module and exchanging data between the selected modules, wherein running each selected module comprises running the selected modules successively until interface conditions converge or until a predetermined maximum number of iterative passes are completed; and

generating a result that indicates the performance of the major components of the power plant.

7. (canceled)

8. (original)   A method in accordance with Claim 6 wherein said running the modular model comprises running the modular model by running each selected module in succession and passing the results from a module to the next module in succession.

9. (original)   A method in accordance with Claim 8 wherein said running each selected module in succession comprises running each selected module in a predetermined order.

10. (original)   A method in accordance with Claim 6 further comprising creating a library of component module models.

11. (currently amended)   A modular method of modeling a power plant, the power plant comprising a plurality of major components including at least one of a gas turbine, a heat recovery steam generator, a steam turbine, and a condenser/cooling tower, said method comprising:

creating a power plant model by selecting a major component module model from a library of component module models for each major component of the power plant, each major component module representing a power plant major component of a unique configuration;

linking the selected modules together to enable data exchange between modules;

inputting initial model information into a database for the selected modules by inputting initial model information into a spread sheet associated with each selected module, the initial model information including at least one of operating parameters, design data, convergence criteria, and a maximum number of passes;

running the modular model by running each selected module and exchanging data between the selected modules, wherein running each selected module comprises running the selected modules successively until interface conditions converge or until a predetermined maximum number of iterative passes are completed; and

generating a result that indicates the performance of the major components of the power plant.

12. (canceled)

13. (original)   A method in accordance with Claim 11 wherein said running the modular model comprises running the modular model by running each selected module in succession and passing the results from a module to the next module in succession.

14. (original)   A method in accordance with Claim 13 wherein said running each selected module in succession comprises running each selected module in a predetermined order.

15. (original)   A method in accordance with Claim 11 further comprising creating a library of major component module models.

16. (currently amended)   A   power   plant   modular   modeling   system comprising a database operationally coupled to a computer, said database comprising a library of power plant major component module models, each major component module representing a power plant major component of a unique configuration, said computer configured to:

create a power plant model by selecting a major component module model from the library of component module models for each major component of the power plant;

link the selected modules together to enable data exchange between modules;

receive initial model information from a user for the selected modules, the initial model information including at least one of operating parameters, design data, convergence criteria, and a maximum number of passes;

store the initial model information in a spread sheet associated with each selected module; and

run the modular model by running each selected module including exchanging data between the selected modules, wherein running each selected module comprises running the selected modules successively until interface conditions converge or until a predetermined maximum number of iterative passes are completed.

17. (canceled)

18. (original)   A system in accordance with Claim 16 wherein said computer is further configured to run the modular model by running each selected module in succession and passing the results from a module to the next module in succession.

19. (original)   A system in accordance with Claim 18 wherein said computer is further configured to run each selected module in a predetermined order.